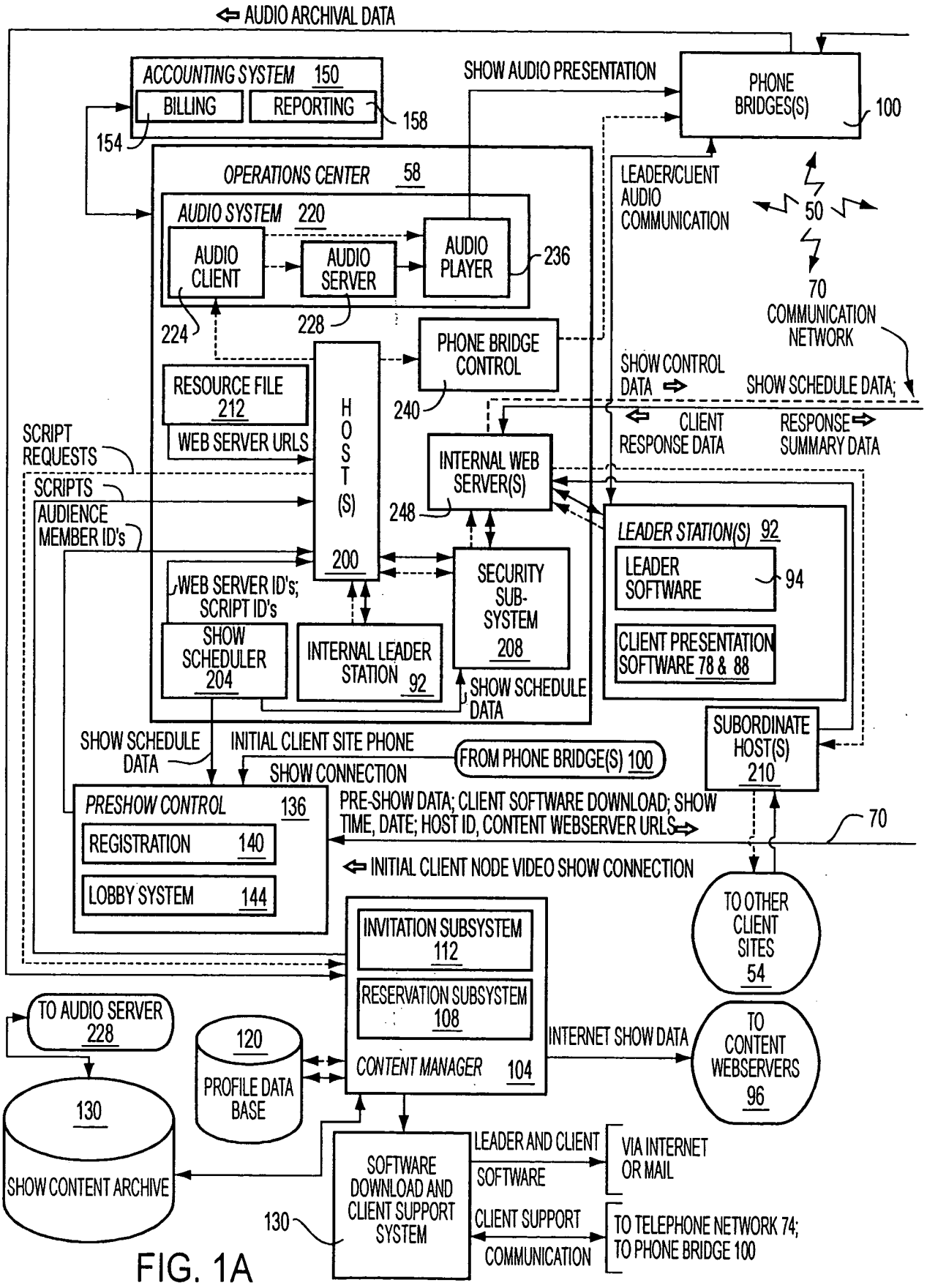

AUDIO ARCHIVAL DATA
ACCOUNTING SYSTEM 150
BILLING
REPORTING
158
154
SHOW AUDIO PRESENTATION
PHONE BRIDGES(S)
100
OPERATIONS CENTER 58
AUDIO SYSTEM 220
AUDIO CLIENT
AUDIO SERVER
AUDIO PLAYER
236
224
228
LEADER/CLIENT AUDIO COMMUNICATION
50
70
COMMUNICATION NETWORK
PHONE BRIDGE CONTROL
240
SHOW CONTROL DATA
SHOW SCHEDULE DATA;
CLIENT RESPONSE DATA
RESPONSE SUMMARY DATA
RESOURCE FILE 212
WEB SERVER URLS
HOST(S) 200
INTERNAL WEB SERVER(S)
248
SCRIPT REQUESTS
SCRIPTS
AUDIENCE MEMBER ID's
LEADER STATION(S) 92
LEADER SOFTWARE
94
CLIENT PRESENTATION SOFTWARE 78 & 88
WEB SERVER ID's; SCRIPT ID's
SECURITY SUB-SYSTEM 208
SHOW SCHEDULER 204
INTERNAL LEADER STATION 92
SHOW SCHEDULE DATA
SUBORDINATE HOST(S) 210
SHOW SCHEDULE DATA
INITIAL CLIENT SITE PHONE
FROM PHONE BRIDGE(S) 100
SHOW CONNECTION
PRESHOW CONTROL 136
REGISTRATION 140
LOBBY SYSTEM 144
PRE-SHOW DATA; CLIENT SOFTWARE DOWNLOAD; SHOW TIME, DATE; HOST ID, CONTENT WEBSERVER URLS
70
INITIAL CLIENT NODE VIDEO SHOW CONNECTION
TO OTHER CLIENT SITES 54
INVITATION SUBSYSTEM 112
RESERVATION SUBSYSTEM 108
CONTENT MANAGER 104
INTERNET SHOW DATA
TO CONTENT WEBSERVERS 96
TO AUDIO SERVER 228
120
PROFILE DATA BASE
130
SHOW CONTENT ARCHIVE
SOFTWARE DOWNLOAD AND CLIENT SUPPORT SYSTEM
130
LEADER AND CLIENT SOFTWARE
VIA INTERNET OR MAIL
CLIENT SUPPORT COMMUNICATION
TO TELEPHONE NETWORK 74; TO PHONE BRIDGE 100

FIG. 1A

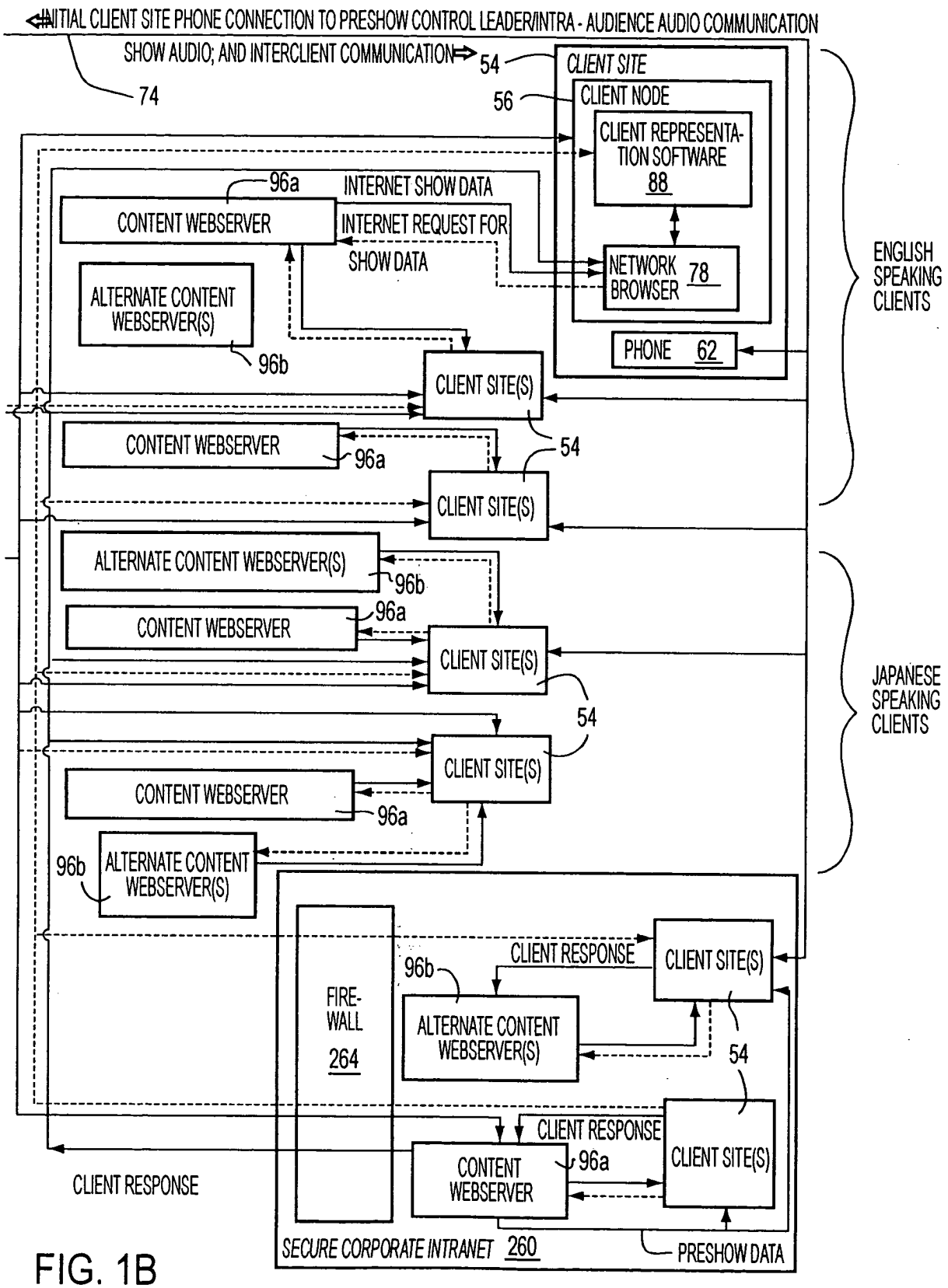
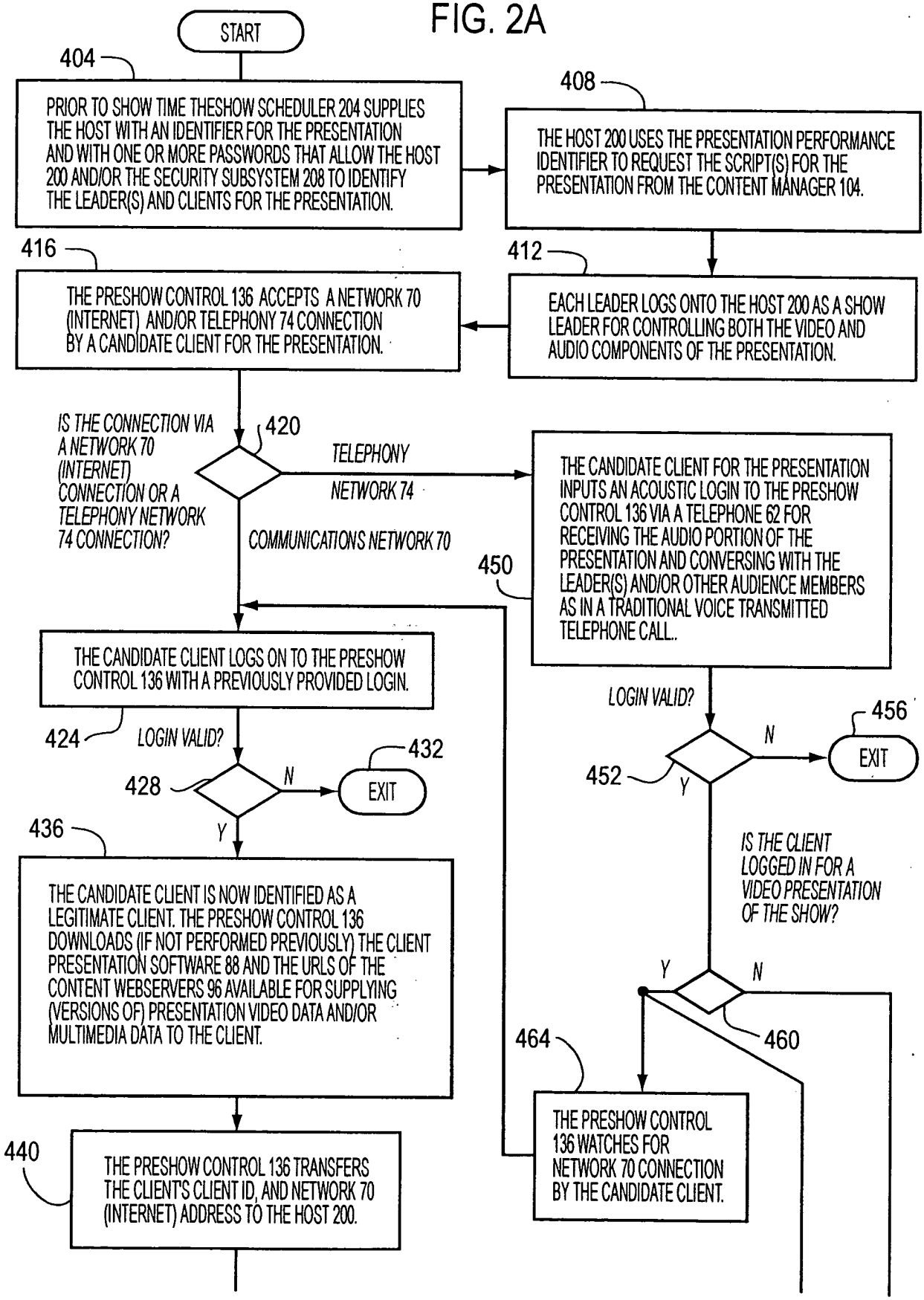

INITIAL CLIENT SITE PHONE CONNECTION TO PRESHOW CONTROL LEADER/INTRA - AUDIENCE AUDIO COMMUNICATION
SHOW AUDIO; AND INTERCLIENT COMMUNICATION
74
54
CLIENT SITE
56
CLIENT NODE
CLIENT REPRESENTATION SOFTWARE 88
NETWORK BROWSER 78
PHONE 62
96a
INTERNET SHOW DATA
CONTENT WEBSERVER
INTERNET REQUEST FOR SHOW DATA
ALTERNATE CONTENT WEBSERVER(S)
96b
CLIENT SITE(S)
ENGLISH SPEAKING CLIENTS
JAPANESE SPEAKING CLIENTS
FIRE-WALL 264
CLIENT RESPONSE
ALTERNATE CONTENT WEBSERVER(S)
CONTENT WEBSERVER
SECURE CORPORATE INTRANET 260
PRESHOW DATA

FIG. 1B

FIG. 2A


START
404
PRIOR TO SHOW TIME THESHOW SCHEDULER 204 SUPPLIES THE HOST WITH AN IDENTIFIER FOR THE PRESENTATION AND WITH ONE OR MORE PASSWORDS THAT ALLOW THE HOST 200 AND/OR THE SECURITY SUBSYSTEM 208 TO IDENTIFY THE LEADER(S) AND CLIENTS FOR THE PRESENTATION.
408
THE HOST 200 USES THE PRESENTATION PERFORMANCE IDENTIFIER TO REQUEST THE SCRIPT(S) FOR THE PRESENTATION FROM THE CONTENT MANAGER 104.
412
EACH LEADER LOGS ONTO THE HOST 200 AS A SHOW LEADER FOR CONTROLLING BOTH THE VIDEO AND AUDIO COMPONENTS OF THE PRESENTATION.
416
THE PRESHOW CONTROL 136 ACCEPTS A NETWORK 70 (INTERNET) AND/OR TELEPHONY 74 CONNECTION BY A CANDIDATE CLIENT FOR THE PRESENTATION.
IS THE CONNECTION VIA A NETWORK 70 (INTERNET) CONNECTION OR A TELEPHONY NETWORK 74 CONNECTION?
420
TELEPHONY NETWORK 74
COMMUNICATIONS NETWORK 70
THE CANDIDATE CLIENT FOR THE PRESENTATION INPUTS AN ACOUSTIC LOGIN TO THE PRESHOW CONTROL 136 VIA A TELEPHONE 62 FOR RECEIVING THE AUDIO PORTION OF THE PRESENTATION AND CONVERSING WITH THE LEADER(S) AND/OR OTHER AUDIENCE MEMBERS AS IN A TRADITIONAL VOICE TRANSMITTED TELEPHONE CALL..
450
THE CANDIDATE CLIENT LOGS ON TO THE PRESHOW CONTROL 136 WITH A PREVIOUSLY PROVIDED LOGIN.
424
LOGIN VALID?
428
N
EXIT
432
Y
LOGIN VALID?
452
N
EXIT
456
Y
436
THE CANDIDATE CLIENT IS NOW IDENTIFIED AS A LEGITIMATE CLIENT. THE PRESHOW CONTROL 136 DOWNLOADS (IF NOT PERFORMED PREVIOUSLY) THE CLIENT PRESENTATION SOFTWARE 88 AND THE URLS OF THE CONTENT WEBSERVERS 96 AVAILABLE FOR SUPPLYING (VERSIONS OF) PRESENTATION VIDEO DATA AND/OR MULTIMEDIA DATA TO THE CLIENT.
IS THE CLIENT LOGGED IN FOR A VIDEO PRESENTATION OF THE SHOW?
Y
N
460
464
THE PRESHOW CONTROL 136 WATCHES FOR NETWORK 70 CONNECTION BY THE CANDIDATE CLIENT.
440
THE PRESHOW CONTROL 136 TRANSFERS THE CLIENT'S CLIENT ID, AND NETWORK 70 (INTERNET) ADDRESS TO THE HOST 200.

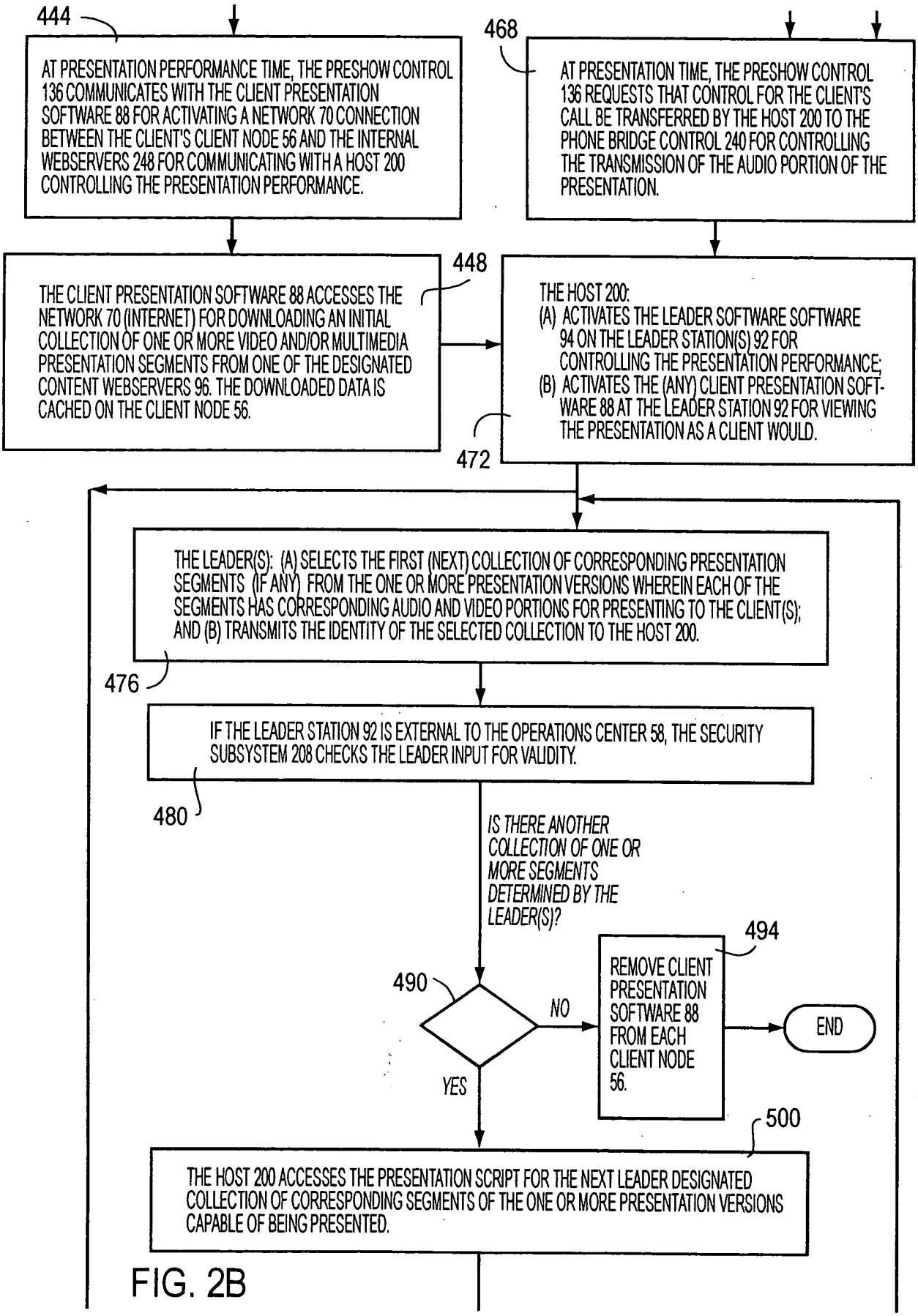

444
AT PRESENTATION PERFORMANCE TIME, THE PRESHOW CONTROL 136 COMMUNICATES WITH THE CLIENT PRESENTATION SOFTWARE 88 FOR ACTIVATING A NETWORK 70 CONNECTION BETWEEN THE CLIENT'S CLIENT NODE 56 AND THE INTERNAL WEBSERVERS 248 FOR COMMUNICATING WITH A HOST 200 CONTROLLING THE PRESENTATION PERFORMANCE.
468
AT PRESENTATION TIME, THE PRESHOW CONTROL 136 REQUESTS THAT CONTROL FOR THE CLIENT'S CALL BE TRANSFERRED BY THE HOST 200 TO THE PHONE BRIDGE CONTROL 240 FOR CONTROLLING THE TRANSMISSION OF THE AUDIO PORTION OF THE PRESENTATION.
THE CLIENT PRESENTATION SOFTWARE 88 ACCESSES THE NETWORK 70 (INTERNET) FOR DOWNLOADING AN INITIAL COLLECTION OF ONE OR MORE VIDEO AND/OR MULTIMEDIA PRESENTATION SEGMENTS FROM ONE OF THE DESIGNATED CONTENT WEBSERVERS 96. THE DOWNLOADED DATA IS CACHED ON THE CLIENT NODE 56.
448
THE HOST 200:
(A) ACTIVATES THE LEADER SOFTWARE SOFTWARE 94 ON THE LEADER STATION(S) 92 FOR CONTROLLING THE PRESENTATION PERFORMANCE;
(B) ACTIVATES THE (ANY) CLIENT PRESENTATION SOFTWARE 88 AT THE LEADER STATION 92 FOR VIEWING THE PRESENTATION AS A CLIENT WOULD.
472
THE LEADER(S): (A) SELECTS THE FIRST (NEXT) COLLECTION OF CORRESPONDING PRESENTATION SEGMENTS (IF ANY) FROM THE ONE OR MORE PRESENTATION VERSIONS WHEREIN EACH OF THE SEGMENTS HAS CORRESPONDING AUDIO AND VIDEO PORTIONS FOR PRESENTING TO THE CLIENT(S); AND (B) TRANSMITS THE IDENTITY OF THE SELECTED COLLECTION TO THE HOST 200.
476
IF THE LEADER STATION 92 IS EXTERNAL TO THE OPERATIONS CENTER 58, THE SECURITY SUBSYSTEM 208 CHECKS THE LEADER INPUT FOR VALIDITY.
480
IS THERE ANOTHER COLLECTION OF ONE OR MORE SEGMENTS DETERMINED BY THE LEADER(S)?
490
NO
494
REMOVE CLIENT PRESENTATION SOFTWARE 88 FROM EACH CLIENT NODE 56.
END
YES
500
THE HOST 200 ACCESSES THE PRESENTATION SCRIPT FOR THE NEXT LEADER DESIGNATED COLLECTION OF CORRESPONDING SEGMENTS OF THE ONE OR MORE PRESENTATION VERSIONS CAPABLE OF BEING PRESENTED.

FIG. 2B

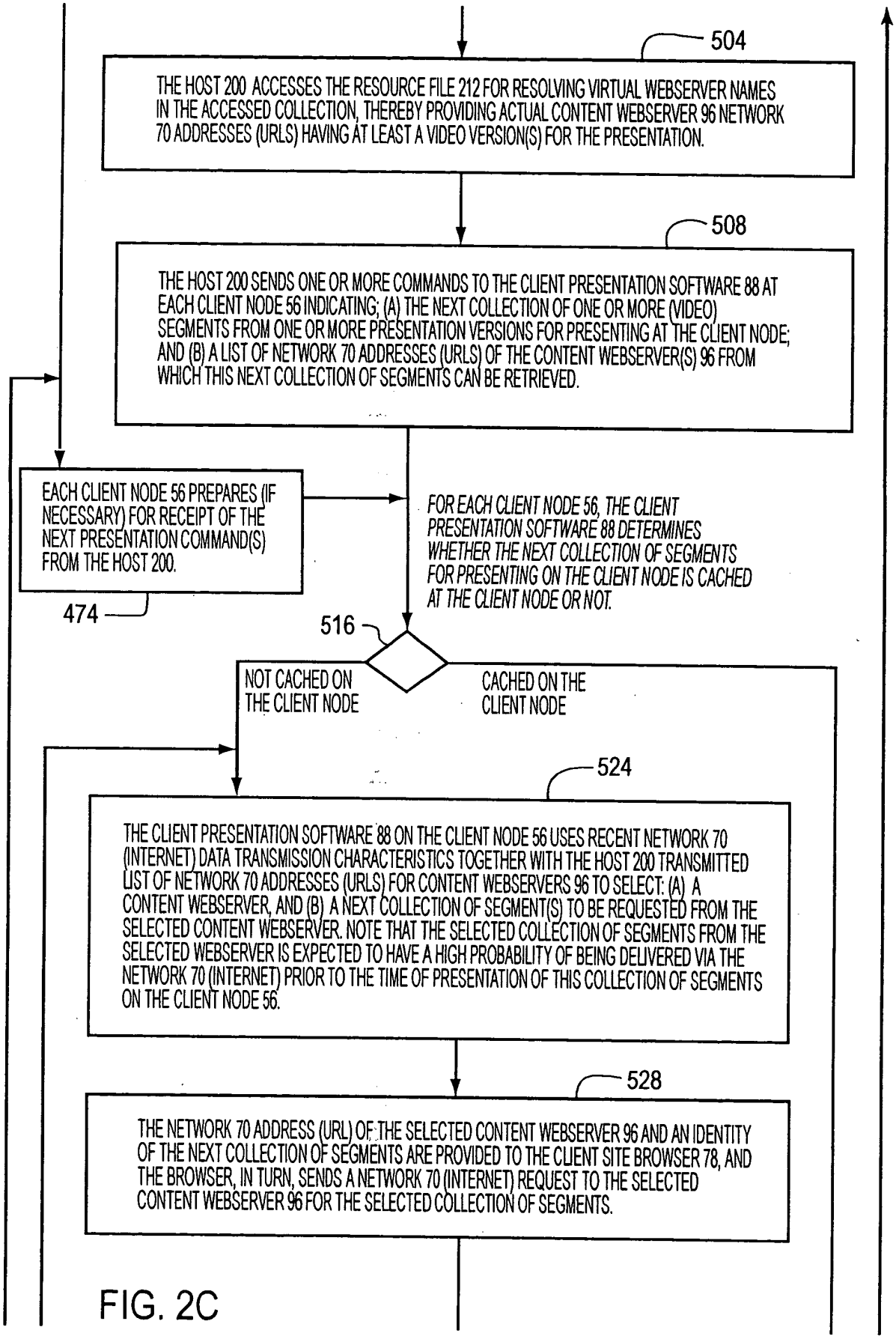

504
THE HOST 200 ACCESSES THE RESOURCE FILE 212 FOR RESOLVING VIRTUAL WEBSERVER NAMES IN THE ACCESSED COLLECTION, THEREBY PROVIDING ACTUAL CONTENT WEBSERVER 96 NETWORK 70 ADDRESSES (URLS) HAVING AT LEAST A VIDEO VERSION(S) FOR THE PRESENTATION.
508
THE HOST 200 SENDS ONE OR MORE COMMANDS TO THE CLIENT PRESENTATION SOFTWARE 88 AT EACH CLIENT NODE 56 INDICATING; (A) THE NEXT COLLECTION OF ONE OR MORE (VIDEO) SEGMENTS FROM ONE OR MORE PRESENTATION VERSIONS FOR PRESENTING AT THE CLIENT NODE; AND (B) A LIST OF NETWORK 70 ADDRESSES (URLS) OF THE CONTENT WEBSERVER(S) 96 FROM WHICH THIS NEXT COLLECTION OF SEGMENTS CAN BE RETRIEVED.
EACH CLIENT NODE 56 PREPARES (IF NECESSARY) FOR RECEIPT OF THE NEXT PRESENTATION COMMAND(S) FROM THE HOST 200.
474
FOR EACH CLIENT NODE 56, THE CLIENT PRESENTATION SOFTWARE 88 DETERMINES WHETHER THE NEXT COLLECTION OF SEGMENTS FOR PRESENTING ON THE CLIENT NODE IS CACHED AT THE CLIENT NODE OR NOT.
516
NOT CACHED ON THE CLIENT NODE
CACHED ON THE CLIENT NODE
524
THE CLIENT PRESENTATION SOFTWARE 88 ON THE CLIENT NODE 56 USES RECENT NETWORK 70 (INTERNET) DATA TRANSMISSION CHARACTERISTICS TOGETHER WITH THE HOST 200 TRANSMITTED LIST OF NETWORK 70 ADDRESSES (URLS) FOR CONTENT WEBSERVERS 96 TO SELECT: (A) A CONTENT WEBSERVER, AND (B) A NEXT COLLECTION OF SEGMENT(S) TO BE REQUESTED FROM THE SELECTED CONTENT WEBSERVER. NOTE THAT THE SELECTED COLLECTION OF SEGMENTS FROM THE SELECTED WEBSERVER IS EXPECTED TO HAVE A HIGH PROBABILITY OF BEING DELIVERED VIA THE NETWORK 70 (INTERNET) PRIOR TO THE TIME OF PRESENTATION OF THIS COLLECTION OF SEGMENTS ON THE CLIENT NODE 56.
528
THE NETWORK 70 ADDRESS (URL) OF THE SELECTED CONTENT WEBSERVER 96 AND AN IDENTITY OF THE NEXT COLLECTION OF SEGMENTS ARE PROVIDED TO THE CLIENT SITE BROWSER 78, AND THE BROWSER, IN TURN, SENDS A NETWORK 70 (INTERNET) REQUEST TO THE SELECTED CONTENT WEBSERVER 96 FOR THE SELECTED COLLECTION OF SEGMENTS.

FIG. 2C

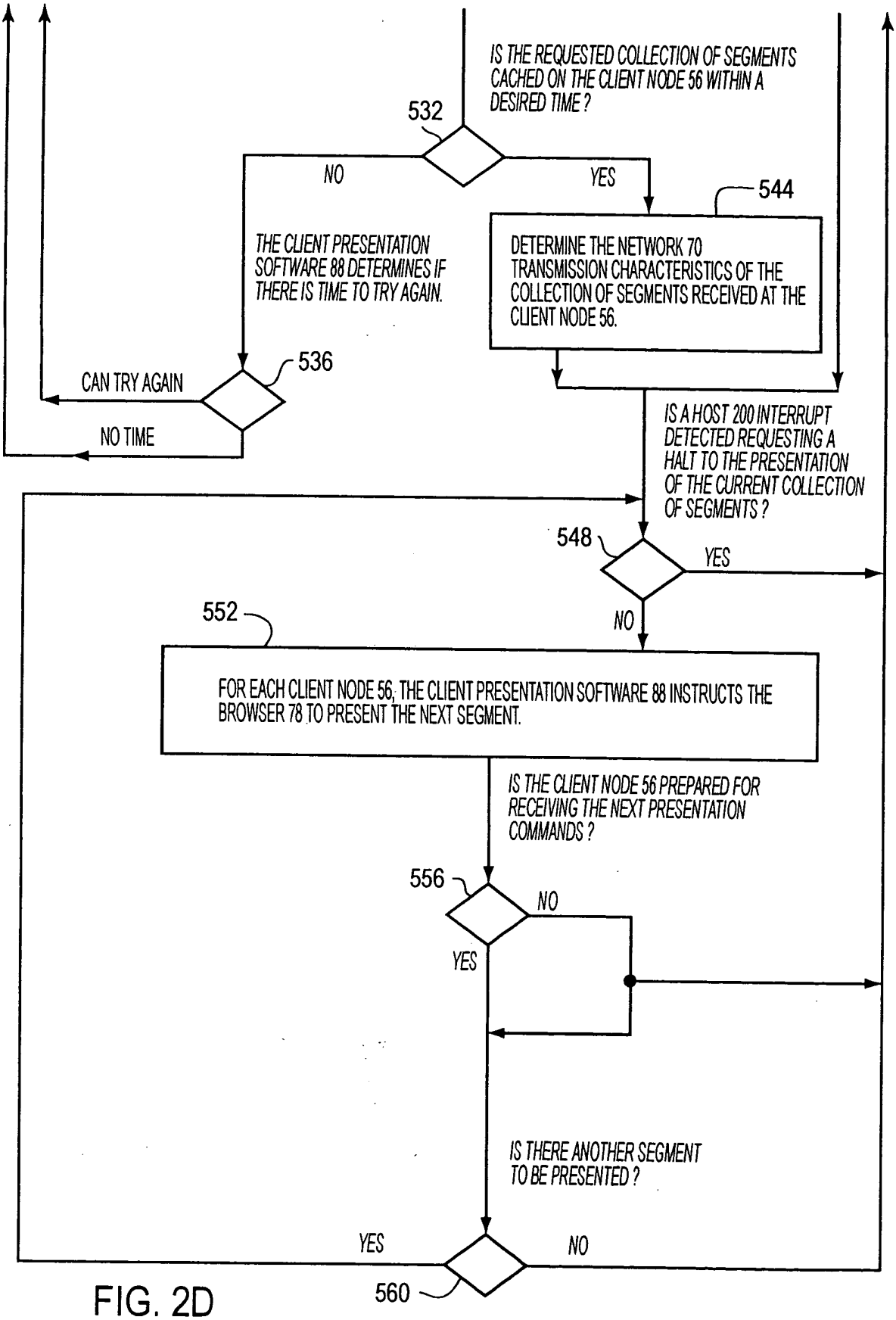
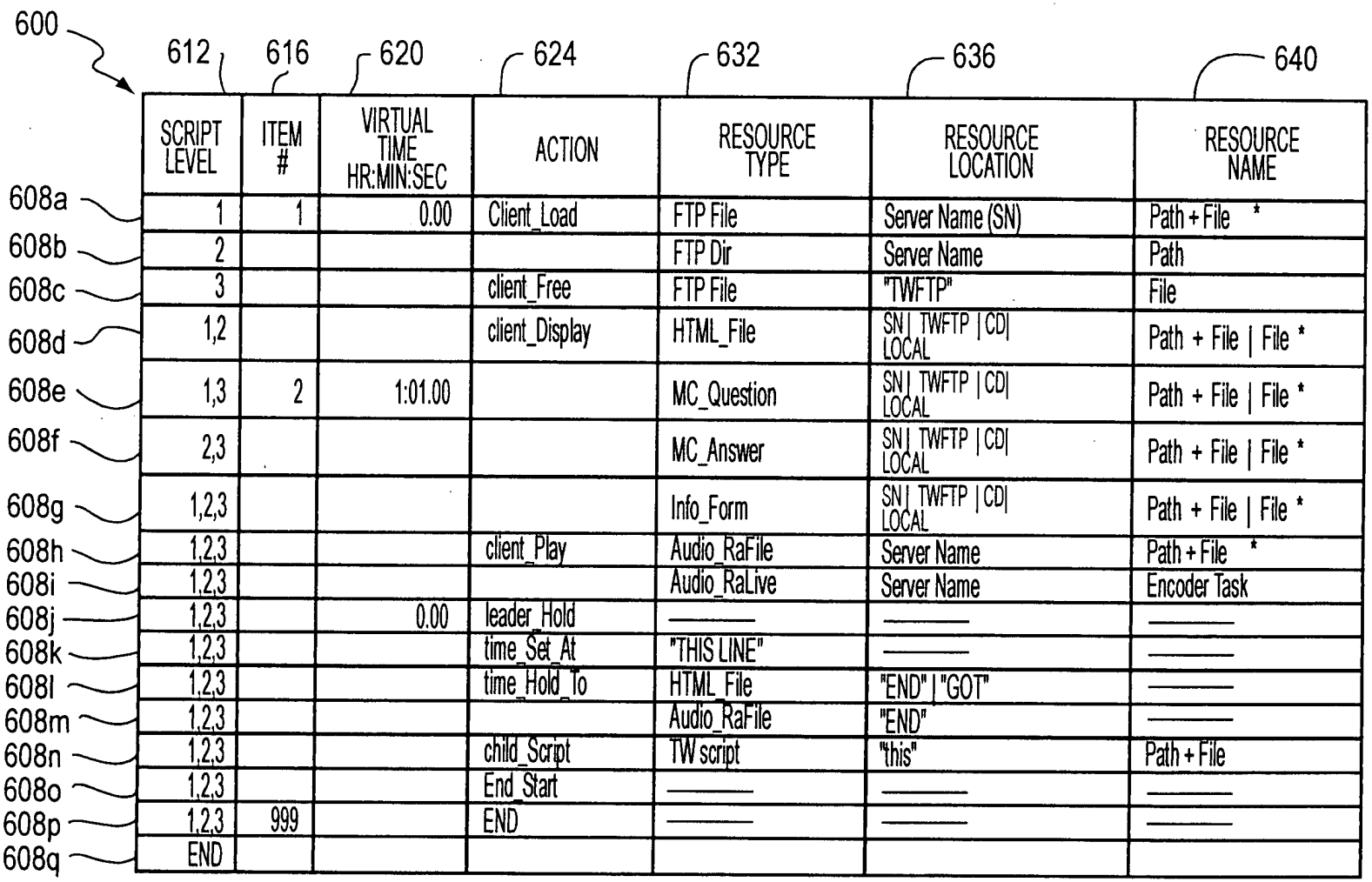

IS THE REQUESTED COLLECTION OF SEGMENTS CACHED ON THE CLIENT NODE 56 WITHIN A DESIRED TIME ?
532
NO
YES
544
DETERMINE THE NETWORK 70 TRANSMISSION CHARACTERISTICS OF THE COLLECTION OF SEGMENTS RECEIVED AT THE CLIENT NODE 56.
THE CLIENT PRESENTATION SOFTWARE 88 DETERMINES IF THERE IS TIME TO TRY AGAIN.
536
CAN TRY AGAIN
NO TIME
IS A HOST 200 INTERRUPT DETECTED REQUESTING A HALT TO THE PRESENTATION OF THE CURRENT COLLECTION OF SEGMENTS ?
548
YES
NO
552
FOR EACH CLIENT NODE 56, THE CLIENT PRESENTATION SOFTWARE 88 INSTRUCTS THE BROWSER 78 TO PRESENT THE NEXT SEGMENT.
IS THE CLIENT NODE 56 PREPARED FOR RECEIVING THE NEXT PRESENTATION COMMANDS ?
556
NO
YES
IS THERE ANOTHER SEGMENT TO BE PRESENTED ?
YES
NO
560

FIG. 2D




| SCRIPT LEVEL | ITEM # | VIRTUAL TIME HR:MIN:SEC | ACTION | RESOURCE TYPE | RESOURCE LOCATION | RESOURCE NAME |
|---|---|---|---|---|---|---|
| 1 | 1 | 0.00 | Client_Load | FTP File | Server Name (SN) | Path + File * |
| 2 | | | | FTP Dir | Server Name | Path |
| 3 | | | client_Free | FTP File | "TWFTP" | File |
| 1,2 | | | client_Display | HTML_File | SN \| TWFTP \| CD\| LOCAL | Path + File \| File * |
| 1,3 | 2 | 1:01.00 | | MC_Question | SN \| TWFTP \| CD\| LOCAL | Path + File \| File * |
| 2,3 | | | | MC_Answer | SN \| TWFTP \| CD\| LOCAL | Path + File \| File * |
| 1,2,3 | | | | Info_Form | SN \| TWFTP \| CD\| LOCAL | Path + File \| File * |
| 1,2,3 | | | client_Play | Audio_RaFile | Server Name | Path + File * |
| 1,2,3 | | | | Audio_RaLive | Server Name | Encoder Task |
| 1,2,3 | | 0.00 | leader_Hold | ——— | ——— | ——— |
| 1,2,3 | | | time_Set_At | "THIS LINE" | ——— | ——— |
| 1,2,3 | | | time_Hold_To | HTML_File | "END" \| "GOT" | ——— |
| 1,2,3 | | | | Audio_RaFile | "END" | ——— |
| 1,2,3 | | | child_Script | TW script | "this" | Path + File |
| 1,2,3 | | | End_Start | ——— | ——— | ——— |
| 1,2,3 | 999 | | END | ——— | ——— | ——— |
| END | | | | | | |

FIG. 3